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Journal of the Society of Arts.

FRIDAY, OCTOBER 18, 1861.

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INTERNATIONAL EXHIBITION OF 1862.

The Council beg to announce that the Guarantee Deed is now lying at the Society's House for signature, and they will be much obliged if those gentlemen who have given in their names as Guarantors, will make it convenient to call there and attach their signatures to the Document. Signatures for sums amounting in the aggregate to £433,500, have been attached to the Deed.

Guarantors who have not received Ivory Passes to the Exhibition Buildings are requested by the Contractors to apply for them to the Secretary of the Society of Arts, John-street, Adelphi, London, W.C.

WEEKLY PROGRESS OF THE INTERNATIONAL EXHIBITION.

The prospect from the top of the Dome scaffold is as extensive as any that can be seen from the summit of the highest buildings in London, having moreover the advantage of a clearer atmosphere than the one which surrounds St. Paul's or the Monument. On the north, are the hills of Highgate and Hampstead, while on the south the view is bounded by the Surrey range, with the Crystal Palace glittering like a jewel in the sunshine. Eastward, the smoke of the City falls like a veil over the distant prospect; even the outlines of St. Paul's Cathedral are indistinct and hazy, while on the edge of the foggy curtain can just be descried the Greenwich observatory. In the middle distance are the Houses of Parliament and the Parks, with glimpses of the river at its different curves; and here and there a tiny thread of white vapour shows where the trains are running on the South-Western and Crystal Palace lines. At one's feet are the buildings and offices of the South Kensington Museum, and the grounds of the Horticultural Society, rich in colour, and, from the immense height, looking like the garden of a Dutch toy.

This lofty position is well adapted for observing the progress of the building, as the eye takes in at a glance the whole of the works below. The nave is now nearly half roofed over, sixteen ribs being in their places; on the one side fourteen windows of the clerestory, and on the other eleven. The galleries on the north and south of the nave are completed and roofed over the entire length, and those on each side of the western transepts are being floored. Six of the clerestory windows in the south-eastern transept have been put in, and four ribs of the north-eastern transept are erected, and that portion covered in. Nearly all the roof of both naves and transepts is covered with felt.

The southern picture gallery, facing the Cromwell-road, is in a very forward state; 24 out of the 28 principals of the roof are fixed, the glazing of the top-lights is progressing rapidly, as well as the laying on of the battens in the interior. Fifteen of the panels in the south front are stuccoed.

A project is on foot to fill these panels with mosaics, pictorial illustrations of "Arts, Science, and Commerce," to be designed by the most eminent artists of the day, and to raise the requisite funds by voluntary contributions. Some decoration, of this or a similar description, will be necessary to give colour to, and break the uniformity of, the Cromwell-road front.

Two of the towers on the eastern side of the Picture Gallery are now rising above the rest of the roof, and go far to break the long straight lines on this side which have hitherto given it a somewhat too monotonous character.

Her Majesty's Commissioners have decided to appropriate to the purposes of the Exhibition, the large strip of ground, on the east, along the Exhibition-road; this will add about 10 per cent. to the space available for exhibiting purposes, and foreign countries have been credited with a proportionate increase in the space previously allotted to them. It is proposed that this additional area shall consist of a large and two smaller open courts, surrounded with arcades, and the further end of it will be converted into a third-class refreshment room. An uncovered space will thus be secured peculiarly adapted for the Exhibition of agricultural appliances and building materials.

The agricultural implement makers, as might be expected from the nature of the objects they exhibite, are anxious to secure a large amount of space. It is understood that upwards of 200,000 feet has been asked for in Class 9 (Agricultural and Horticultural Implements), by about 280 exhibitors, or, on an average, more than 715 square feet to each exhibitor. It is manifest that they must be contented with a very much smaller allotment than this, otherwise they bid fair to transform the whole Exhibition into a show for ploughs and threshing machines. In the Exhibition of 1851 the average allotment to each exhibitor in this class was 100 feet, and in all probability even that amount cannot be afforded on the present occasion. It must be taken into consideration that Agricultural exhibitions are held annually in all parts of the country, where the makers have every facility for displaying their latest improvements. It should be their policy on the present occasion to produce only those

articles which are best suited for a foreign market, or which are from novelty of invention or ingenuity of construction, of great importance to the country at large.

The following arrangements have been made since the last announcement:—

Ceylon.

It has been intimated to Her Majesty's Commissioners that Mr. E. R. Power, late of the Civil Service, has been appointed Commissioner for the Island of Ceylon.

The Argentine Confederation.

The following gentlemen have been appointed to represent this Republic on the occasion of the opening of the Exhibition:—Mr. Marmaduke Blake Sampson, Mr. John Fair, and Mr. W. Wheelwright.

Brazil.

Her Majesty's Commissioners for the Exhibition of 1862 have received an intimation that active steps are being taken by the Government of this kingdom in furtherance of the exhibition of the produce of that empire. An exhibition of raw produce and manufactures will be shortly held in the capital of each province, and a general exhibition of the choicest specimens from their provincial gatherings will take place at Rio de Janeiro, in the month of December next. From the different articles there contributed from all parts of the empire, a still further selection will be made, by a Commisssion appointed for the purpose, and will be transmitted to London.

Belgium.

Messrs. Delpierre and De Grelle have been appointed joint Belgian Commissioners in London.

THE BRITISH COLONIES AND THE INTERNATIONAL EXHIBITION.

By P. L. Simmonds.

No. VI.—The Australian Colonies.

Since the last Exhibition two important districts of the old colony of New South Wales have been separated from it and formed into independent colonies, namely, the districts of Port Phillip and Moreton Bay.

Victoria.

Although Port Phillip was detached from New South Wales in 1850, yet it had scarcely been constituted into an independent colony, under the name of Victoria, at the time the Exhibition of 1851 originated. From a population of 77,000 souls, it has risen now to upwards of 541,000, and it will make a magnificent display of products and manufactures. I proceed to give a retrospect of the course of proceedings that has been taken in that leading colony, and what they propose to exhibit.

In January the Governor, Sir Henry Barkly, K.C.B., issued a Commission to certain gentlemen, authorising them to take steps for a local Exhibition during the present year, and for the transmission of such articles as might be selected as worthy to be exhibited at the London Exposition. The sum of £5,000 was also voted by the legislature towards the necessary expenses. His Excellency expressed his readiness to co-operate in every possible way for facilitating the important object in view. The Commissioners appointed in the colony were Sir Redmond Barry, Knt., one of the Judges of the Supreme Court, the Honourables Sir Francis Murphy, Knt., Speaker of the Legislative Assembly, J. H. Brooke, President of the Board of Land and Works, Sir J. F. Palmer, Knt., President of the Legislative Council, Richard Heales, Chief Secretary of the Colony, W. C. Haines, John O'Shanessy, C. H. Ebden, Charles G. Duffy, John B. Humffray, Commissioner of Mines, John Macadam, Esq., M.D., Government Analytical Chemist, Member of the Legislative Assembly, Frederick McCoy, Esq., F.G.S., Professor of Natural Science in the University of Melbourne, A. R. C. Selwyn, Esq., Government Geologist, Frederick Mueller, Esq., M.D., Government Botanist, Richard Eades, Esq., B.M., C. E. Bright, Esq., and R. McDougall, Esq. Dr. Macadam was named as Hon. Sec., and the Commission having been gazetted, early in February proceeded to work. On the 2nd February a circular was issued, signed by the President, Sir Redmond Barry, from which I shall make a few extracts:—

"In order that this undertaking may be attended with the fullest measure of success, and that the numerous, varied, ample, and important resources of this fertile territory may be adequately represented in the approaching competition of nations, the Commissioners call upon the people of Victoria in general to give them a ready and willing assistance. To those engaged in the different branches of industry they more particularly appeal, and earnestly request that they will exert themselves so that a collection of objects worthy of the country and of the great occasion may be supplied.

"Preliminary to the Exhibition in London, an Exhibition will be held in Melbourne, in or about the month of October. No objects not presented at the latter will be transmitted to London, unless exceptional circumstances, such as recent discovery, capture, production, or completion intervene, to prevent their being so presented.

"With respect to raw materials, the leading elements of merit will be—utility, beauty, perfection, facility of attainment or production, cheapness, a universal adaptation to all markets, or a special fitness to meet a particular want of a more limited character.

"With regard to manufactured articles, excellence of quality of materials, strength, and neatness of workmanship, durability, cheapness, and economic value as a commodity for exportation, or domestic consumption or use. With reference to those which claim attention as the result of invention or mechanical ingenuity, original contrivance or commendable novelty in the application, combination, or economy of power, or of manufacturing process, adaptation of material, usefulness, convenience, strength, finish, and suitableness for accomplishment of the intended purpose; while in determining on the superiority of productions of the fine arts, a judgment will be formed upon the acknowledged rules of discrimination and taste.

"The objects to be exhibited in Melbourne have been ranged under seven leading classes, agricultural products (vegetable and animal); horticultural products; mineral products; machinery; instruments, tools, &c.; animal products, and the manufactures and processes connected with each; and, lastly, miscellaneous. These classes include all the chief products of the country, and admit of easy expansion and re-arrangement to meet the classification required in London. They have been distributed into sections, which are sub-divided into minor groups, to be themselves again separated into more particular enumeration of articles. The expectations respecting the forthcoming Victorian display are in proportion to the wealth, and to the opportunities of cultivating in security the arts of peace enjoyed by those who inhabit this favoured colony. These expectations are not likely to be disappointed."

The First Report of the Exhibition Commissioners for Victoria, dated 12th April, presented to both Houses of Parliament in the colony by His Excellency's command, is a long and elaborate document, and there are several points mentioned therein well worthy of notice. Thus the Commissioners state:—

"We have taken steps to cause a complete collection of the indigenous timber of this country to be made, and it is hoped that in addition to the numerous descriptions of valuable wood which may thus be brought under the attention of the public, a knowledge of their properties, and distinctive and relative value for constructive purposes may be attained.

"As it would be useless to transmit actual specimens of the fruits and vegetables produced here in a state fit for exhibition in England, models, in gypsum and other material, of the finest productions of our gardens, orchards, and vineyards, are being made.

"The committee appointed to superintend the department of agricultural products have placed themselves in direct communication with the various agricultural societies established in different parts of the country, and have received already in many quarters promises of such support as may insure a full representation of that important branch of our industrial resources. Similar correspondence has been opened with many of the most successful breeders of sheep, inviting them to pay particular attention to the selection and care of the finest woolled of their flocks, and to send parcels or cabinets of the most excellent fleeces. If these expectations be realised, the Commissioners will have it in their power to send to Europe a sufficient quantity of wool of the highest class, to enable them to have cloths and fabrics of the most delicate texture made, in the most celebrated manufactories of England and the continent of Europe. Some of the latter being illustrated with patterns and designs, including some of the most graceful and becoming flowers of the country, an additional interest may be given to them thereby.

"With the hope of being able to procure the best collection of specimens of gold, and at the same time to economise the resources placed at our disposal we have addressed ourselves to the different banks and requested their valuable co-operation. If the arrangements in contemplation can be satisfactorily carried out, we expect that we may be allowed to make selections from time to time, from the large quantity of the precious metal purchased by them, of specimens possessing peculiar attractions by reason of size, richness, or on account of the ore being associated in an unusual manner with other mineral. If so permitted these can be sent to England for exhibition and sold when the object in view is attained, a reasonable compensation being paid for the use of them. It is apparent that the views of the Commissioners in this respect would be largely assisted if your Excellency and your advisers would be pleased to sanction the remittance of funds for emigration, or other public purposes, to be made in crude gold, which after it has been exhibited would be disposed of in London on the public account.

"In pursuing these inquiries it has appeared to us that it is highly desirable to bring prominently before those who will congregate in London, the results of the intellectual and scientific as well as of the manual and manufacturing industry of the people of Victoria. With a view of illustrating what has been done in this direction, it has been considered advisable to submit a recommendation to your Excellency that the patents recorded in the office of the Registrar-General be printed; that a physical atlas of Victoria be prepared and printed. Each suggestion, standing as it does on a different footing. can be supported on different grounds. The enlightened experience of modern times shows that it is now considered by the government of every civilised country to be its duty to inform the public of the progress made in intellectual development, of the fruits of which it has constituted itself the depositary and custodian. This has been in some degree accomplished in this country already by the publication in the *Government Gazette* of the notices required to be given by persons about to apply for patents, and by the reports submitted to your Excellency, which you are pleased to command shall be laid from time to time before Parliament, showing in detail the labours of gentlemen engaged in the scientific departments of the public service. These reports would reflect credit and honour on any country, but at present they circulate but little, if at all, beyond the precincts of the Parliament yard.

"When it is borne in mind that these departments are supported at great expense to the country, are presided over by men of admitted ability and reputation, that in addition to the valuable material work performed in each, a large quantity of scientific work of the highest order in its class is both directly and incidentally added; it is obvious that there must be a loss to the community at large, and that it may prove (if it be not so already) dispiriting to the gentlemen engaged, if more ample means of appreciating their labours are not given. The patents have now accumulated until they have filled seven large volumes, furnishing material (if the whole were printed) for five octavos of the ordinary size.

"Notwithstanding the great care taken by the Registrar-General in arranging them with as much skill and solicitude for their protection as the very difficult circumstances with which he has to contend will allow, they are virtually unknown to all, except those immediately interested in the subjects of which they treat.

"To publish all at full length, with the drawings of the size of the originals, would be too costly a project to be undertaken now; and even were the means at the disposal of Her Majesty's Government ample for the purpose, it is a course which we would not recommend. However, it is manifest that, whether it be deemed expedient to publish them in extenso or in an abridged form, if the publication be deferred for a very few years longer the expense of publishing, what may be considered sufficient, will have swelled to an amount which will effectually deter any ministry from giving their sanction to the attempt.

"It is however possible to accomplish what is within the limits of reasonable outlay, viz:—

(*a.*) By eliminating from the mass all such patents as have been taken out originally in Great Britain aud in foreign countries and merely registered here, and selecting only those which claim privilege as the invention of persons resident in Victoria.

(*b.*) Excluding from the letter press all prefatory matter and operative words of grant, printing only the descriptive parts and notification of claim of invention.

(*c.*) Representing the illustrative drawings of a uniform size, and instead of adopting an expensive mode of drawing by hand, in all cases where practicable using the process of photo-lithography as applied in the Surveyor-General's office.

"If such a course of proceeding were adopted under careful and conscientious supervision, the portion which it may be considered incumbent on the Government of the country to provide for, might be executed at a moderate outlay; and if the whole of the undertaking were, upon estimate and computation, held to be too expensive to be completed this year, two volumes, one containing the last and one of any of the preceding year's patents might be undertaken, and the remainder brought out yearly in a similar manner until the arrears were brought up, when those deposited after that time might appear in annual continuation of the series.

"The government printer has been so good as to supply an estimate of the expense of publishing the whole, the illustrations, 280 in number, being performed by the process of tracing, transfer, and lithography as near as possible in the style of the Illustrated Catalogue of British Patents. This, for 1,000 copies, amounts to the sum of £2,500, independent of printing; and with the means at his disposal the whole of the work (even were it advisable to undertake it) could not be performed in time. The Surveyor-General has also had the goodness to cause an estimate to be made of the cost of carrying out the project on a similar style by tracing, transfer, and photo-lithography, and for a like number of impressions fixes the sum at £1,284. If, as before remarked, a portion only of the work were undertaken now, funds sufficient might be forthcoming without any undue pressure on the revenue, or interference with the execution of any other necessary work; while it is to be expected that something might accrue by way of return for the outlay by sale of the volumes or of copies of individual patents.

"The publication of the Physical Atlas commands, as it appears to us, still greater attention.

(*a.*) The materials for its construction exist in the elaborate productions already in the offices of the Paleontologist, Board of Science, Director of National Museums for recent Zoology, Geologist, Surveyor-General, Botanist, Meteorologist, and Registrar-General.

(*b.*) It would embody in a form authentic and vouched by the authority of Her Majesty's Government, the most interesting particulars connected with the civil, social, and natural history of the country.

(*c.*) It would, as we may venture to expect, repay the outlay, as it would be readily accepted not only as the work for popular information, but as the best, indeed the only work for scientific and geographical instruction for our university, schools, and private families.

(*d.*) It would serve as a standard of reference beyond all doubt or dispute for those desirous of selecting a country as a place of residence or for the investment of capital, or for those who may be engaged in the more comprehensive project of directing immigration to these shores.

"We have the honour to submit the foregoing for your Excellency's consideration. We trust that you will be pleased to approve of the suggestions, and that with that approval and the sanction of your Excellency's advisers, we may be empowered to take immediate steps for the publication of the patents, or such portion as your Excellency may be advised to allow, and as well as for the compilation and publication of the Physical Atlas of Victoria. No estimate has been made of the probable expense of compiling and printing the Physical Atlas. The preliminary outlay might probably be borne by the Board of Education, to be repaid by the presentation to them of a certain number of copies. However, it is confidently expected that the publication would repay the cost."

A late number of the *Melbourne Argus* says:—"For some time apprehensions were entertained that Victoria would not be represented in the great forthcoming Exhibition of 1862 in so worthy a manner as those who are interested in her prosperity and good name could desire. While the Royal Commissioners trusted to circulars and invitations posted on the walls of cities and towns, little was done beyond the immediate efforts of the committee, and as time slipped past, and the contributions were few in number, it became necessary to change the plan of action, and throw new life and vigour into it. The Commissioners then resolved to appoint an agent, whose business it should be to dovote himself to the interests of the colony in furthering the Exhibition, and the appointment was accepted by Mr. J. G. Knight, who has made considerable progress with a personal canvas in Melbourne, and will follow it up by visiting Geelong, Ballarat, Creswick, Maryborough, Castlemaine, Sandhurst, the Ovens, &c.; and in several of the more important of these towns his Honour, Sir Redmond Barry, has given a fillip to the exertions of the local authorities in addresses which he has taken occasion to make on the subject during his late visits on circuit. In response to the personal applications that have been made, numerous applications for space have been sent in, and still more numerous promises have been made."

The applications sent in embrace the following amongst other articles:—Samples of antimony, tin, black sand, lime, wine, wheat, meteorological instruments, quartz, fountains, model of a bridge, pictures, model of railway carriage improvements, &c.; specimens of wood carving, imitations of woods and marbles on wood and glass, kangaroo-skin boots, artistic penmanship and etchings, new reclining and invalid easy chairs, stays, surgical belts, surgical instruments, window blinds, razors and strops, guano, patent fixing bricks with wood keys, new and improved method of attaching joiners' or other work to walls of buildings, &c.; pianoforte, engraving, carved mug, shell and sea-weeds, petrified leaves, ten pictures and vases of Australian seaweeds and other marine productions, specimens of fancy leather goods, colonial made Stilton cheese, carved frame, table, and sideboard, in native woods; screen, with fragmentary illustrations of the processes of engraving, lithography, printing, and photographic art in Victoria; billiard-table, complete; cordials, colonial-made jewellery, gold and silver smiths' work, wood engraving, bonnet boxes, samples of machine-made joiners' work, ale and beer, patent disengaging hook to prevent mining accidents, patent vacuo-amalgamating and indurating machine, liqueurs, vinegar, blacking, patent bitumenised pipes, wool from Chinese sheep, salted meat, wines, peat from Yering, straw bonnets of colonial material, a telescope table, refined and raw sugar, samples of treacle, spirits of wine and rum; colonial-made garments of various kinds, hose, pipe, and other waterproof goods of colonial manufacture; samples of wool; Australasian Atlas, a pen and ink drawing, 9 ft. 3 in. by 6 ft. 3 in.; frame for the above, made from woods of all the colonies; a collection of auriferous quartz and gold specimens; whale-oil; stalactites, from the caves near Portland; precious stones, pumps, gas-fittings, pipes, saddlery, pottery clay, tinware, and stencil-plates, colonial-made rules and scales, engraving and lithography, wicker and wire work, biscuits, colonial herbs, wool flock, bone manure, specimens of dyeing, specimens of wood-turning, wood engraving, patent boots, furniture, samples of seeds of various kinds, model of bush fire-engine, specimens of coppersmiths' work, specimens of brasswork, colonial-made masons' and quarrymen's tools, ornamental printing, sassafras, natural history specimens, cork-cutting, pottery, the great Australian topaz, perforating machine, specimens of manufactures in colonial woods, &c.; case of colonial-made millinery, choice fleeces of wool, &c.; samples of stereotyping and electrotyping, engineers' work, colonial-made saws, soap, candles, &c.; agricultural implements, wire-work, cooperage, colonial-made hames and saddle-trees; colonial drugs, mineral waters, and new chemical preparations; seeds of various kinds, specimens of bent, cut, and blown glass; ornamental work on glass, ornamental writing, &c.; models and apparatus for use of drawing classes; tinware and japanning, jewellers' bent glass cases, convex and bevelled dial glasses; artificial legs, arms, &c.; chasing and embossing, chased gold and silver work, castings, woolpress, manufactured tobacco and snuffs, mirrors, ovens, colonial-made lead piping, taps, new chemical compounds and preparations, colonial-made stringed musical instruments of various kinds; flour and grain; limestone specimens; hats; music published in Victoria; microscopic slides of colonial subjects; bookbinding, model of amalgamating machine, and model of bridge; metal buttons, &c.; colonial fishing rods, &c,; lithographic printing, plain and printed paper bags, rolled iron, in bars of various sizes; railway carriages, samples of machine wrought timber, &c.; a carriage; preserved and salted meats; a water-engine; books published in Victoria, bookbinding, cutlery, gas-fittings, Myall-wood pipes, model of puddling machine, prepared leather; hydraulic machine, made piping, photographic apparatus; machine ground spices, &c.; dressed leather and skins, &c.; machine-made joiners' work; writing cases, &c., in leather; sample of a new cement, patent gold amalgamator, new hydraulic machine, a sampling machine, hydraulic machine—made metal work, corrugated iron, &c.; horse-work and chaff cutting machine, maize and corn crusher, &c.; agricultural machinery; a tent of peculiar construction; colonial-made rifle, new bullet moulds; skins, &c.; specimens of blinds; oatmeal, and maizemeal; model of moveable staging used in the erection of the Moorabool Viaduct; specimens of building and of cabinet woods, specimens and models of patented machinery, &c., minerals and ores; seeds and fruits; preserved fish, oils, &c.; ornamental work on glass, a new description of scales; ink, vinegar, pickles; washing and baking powders; improvements in lamps, samples of tinware; a new description of church clock, basket ware, decorative work, samples of forest timber, and specimens of chromotype photography.

This long list shows that the industry of Victoria is not confined to wool, gold, and grain, and that there are the germs of many branches of industry, which will gain strength with time and the progress of the colony, until they flourish.

Dr. Fredk. Mueller, F.R.S., has made great progress with a collection of samples of the native woods, which, while it will be a most interesting feature in the Exhibition, will probably be productive of permanently beneficial results to the colony.

A raised map of the colony, on a considerable scale, is about to be commenced. It will show the natural features of Victoria—its coast line, mountains, water-courses, plains, forests, roads, railways, &c. The alienated and Crown lands, the gold-fields, &c., will be shown in distinct colours, and thus the visitor to the Exhibition will have before him a miniature Australia—as it is. He will see at a glance the enormous amount of land open for agricultural settlement, and the numerous gold-fields scattered all over the colony; and, possibly, some erroneous ideas on the subject of the water supply will be removed by the long lines of rivers and creeks which the map will display. This feature of the Exhibition, therefore, may of itself be of great service to the cause of immigration.

Another special feature will be a splendid specimen of penmanship, set in a magnificent, peculiar, and appropriate frame, to which three clever colonists are now giving themselves up with devotion. The author of the specimen is Mr. Mackain Meek, formerly a fisherman of Yarmouth; of the frame Mr. Martin, of Clifton-upon-Teme, Worcester (now of Buninyong); and the friend and capitalist who "pays the way" is Mr. Nutt, formerly of Bath, and latterly a successful Bendigo miner, who will himself contribute a very handsome and valuable collection of nuggets, obtained from the Victoria Reef, Epsom and other localities. Mr. Meek discovered his peculiar talent almost by accident, and gave a first public sample of it in his fine Tablet of Victoria, exhibited last year in the bazaar for the benefit of the Lying-in Hospital. That work was admitted to be a remarkable example of penmanship, but it is entirely eclipsed by the Atlas of the Australasian Colonies, on which he is now engaged. This last is nine feet three inches by six feet three inches in size, and has engaged Mr. Meek's undivided attention for the last six months. The great bulk of the work however, is now done, and in six weeks more it will be finished. In the centre, within an elegant scroll, is a sketch of the advantages Australasia presents, and its prospects of becoming great. In the arrangement of the lines great taste is shown, and the fancy displayed in the forms of the letters is rich, varied, and harmonious. At the top is a map of the continent of Australia, and at the bottom one of Victoria. Maps of New South Wales, Queensland, Tasmania, New Zealand, South Australia, and Western Australia, are placed at the sides, all drawn to scale, with the pen, and lettered with remarkable clearness. Views of Melbourne, Sydney, and Auckland, the seal of the Corporation of Melbourne, the arms of His Excellency, and various spirited sketches of colonial birds and animals are disposed in convenient places, and the whole is filled with every variety of information as to the history, progress, natural features, productions, &c., of the various colonies of Australasia. The frame will stand fifteen feet four inches in height, and will be eleven feet in breadth. The design is very handsome. It will exhibit all the styles of architecture introduced between the 10th and the 16th centuries. The material will be of native woods of all kinds, and the effect will be aided by the introduction of silvered and coloured glass. It will show that the hand of the artist—employed at home on some of the best works in England—has not lost its cunning. When the work is ready for exhibition, it will have cost some £500, without reckoning Mr. Meek's own eight months' labour; and it is hoped that all concerned in it will find their reward in the sale of the copies which will be made of it on a reduced scale by photography.

From those who have no manufactures or produce to show, Mr. Knight is obtaining photographs of business premises, which, judiciously arranged, will add to the interest of the compartment; and with models of the public buildings, mining models, inventions, batteries of stamps, quartz specimens, models of fruit, fish, pictures, panorama of the railways, &c., &c., there will be a diversity and peculiarity in the show which Victoria will make in the Exhibition of 1862.

Amongst the numerous articles which it is intended to forward as evidence of the resources of the colony, may be mentioned 25 tons of auriferous quartz, from the Clunes Quartz Mining Company. Models of mining machinery will also, doubtless, fill a very important place amongst the exhibits, and valuable improvements may, perhaps, be suggested by some of the scientific men by whom it is reasonable to suppose they will be examined.

An offer has been made to exhibit a most interesting model, representing life and operations in the gold fields of Ballarat, which took the clever modeller, Mr. Nordstrom, a native of Stockholm, five years in its elaboration, and cost about £3,000. The model is a representation in miniature of every phase of gold digging life, from the surfacer with his pick and pan, to the deep sinker with his costly array of steam engines, pumps, deep shaft, and multitudinous tunnellings, with all the intermediate kinds of working known to the Victorian miner of the present day. The figures are formed of wax, while the tents, hotels, stores, shaft-shanties, windlasses, whims, whips, picks and shovels, steam engine, trees and stumps of trees, gold, quartz, reef, sand, carts and drays, cradles, long toms, and buckets, and all the other things represented, are really and truly but tiny copies of the things in daily use or view, and made of the same materials. The gold, and quartz, and reef, and sand, are real gold and quartz and reef and sand; the trees, stumps, and timber, are real trees, stumps, and timber; and all the tools and implements mentioned are manufactured of veritable wood and iron and tin. The whole affair is extremely accurate, even to the minutest detail, and to the roughness of appearance which a goldfield, and *par excellence* a new rush, presents.

Standing at the upper end of the model we have before us, at the right-hand corner, part of an auriferous range, on the sides and top which a "rush" has taken place, and surfacers and shallow sinkers are busily at work. The face of the hill shows in section the shallow sinkers' shafts and "drives." One digger is seen ascending his shaft, while others are seen in the drives hard at work. One "new chum" is going down upon a pillar or solid bit of ground, while an "old chum" is quietly driving out the washdirt from beneath the pillar. At the foot of the hill is a creek running away down a flat, and having a dam at one place, and lined with diggers of all nations washing with dish or cradle, or long tom, as the case may be; while the flat itself is crowded with diggers of all kinds up to (or down to) the deep lead miner. Leaving these for a while, we move on to the left, and at the corner is the commencement of the "main road," common to all gold fields in the "new rush" portion of their existence. The "Southern Cross Hotel" comes first, with bands of musicians in front; then come the butcher, chemist, general dealer, clothier, gold buyer, smith, grog shanty, cigar shop, and at the lower end the ever-present timber yard, out of which a digger or a shanty-keeper is sallying with some battens on shoulder. Rounding the corner, we come to the model of the engine, engine house, shaft shanty, puddling machine, pumps and sluice-box of the Great Eastern Company, Golden Point Lead, and are now looking up the "flat," and facing the spot from whence we started. The Main Road we have just come down is full of vehicles and passengers. There are a coloured man hawking pies, children with a goat's cart full of cabbages, equestrians, loaded drays, a butcher's flock of sheep, a string of Chinamen with laden bamboos, the gold escort with its outsiders, a Chinaman with a pig, a hawker of newspapers, a hurdy-gurdy girl, a couple of beardies, courtezans, new chum with "bell-topper," black coat on arm and double swag, and divers other figures one meets every day on the goldfields. Looking over the model of the surface works of the Great Eastern Company, we observe on a heap of mullock a couple of " gents" arm in arm, one of whom is pointing with an umbrella to a "jumpers" dispute and fight—that ever recurring scene at a new rush. Beyond in the flat we see deep lead shafts in all the variety of working and gear. One claim has a whim, another a windlass; some are in the gutter and are baling water and filling up the paddock; while others are in " the reef," and are less troubled with either water or washdirt than their neighbours. At the bottom is a Yankee " prospecting" and thinking to " do" the Britishers. On the right hand a boring party are hard at work, some working the bore, others preparing timber, others getting the iron tubing in order. In a tent hard by a shaft we see a miner drawing on his boots, preparatory to a descent down the shaft. Outside another tent a party are cooking their meal; one has the frying-pan, another beaf steaks, and another loaves of bread. Passing on to the left, we come to another auriferous hill, covered, as is the one already described, with workers, trees, tree stumps, and felled logs; and at the lower edge a water race is led off on " flumming" to a party of washers-up. The face of the hill, cut in section, shows the shallow sinking drives again, with the diggers driving out the washdirt; one fossicking, another smoking, and so forth, in all postures, and at all kinds of work; while on the hill top, a digger is hastening with a bag of washdirt to the creek. Rounding the corner to our left, we come to the creek side, where, besides the usual washing operations, we see the fight already alluded to, and towards which the diggers are seen approaching from all directions, a " ring" being already formed. In a tent alongside are a party dividing their gold, and in another further off is a digger indulging in his *siesta* upon a stretcher, or reading a book, in an attitude suggestive of a full disposition to " take it easy." Passing on, we come to the reverse side of the hill we started from at the commencement of our tour. On the top are some quartz miners at work, while the slope of the range is covered with the usual arboriferous vegetation of the Australian goldfield ranges, and interspersed therewith figures of birds, animals, and natives, with mimi, boomerang, dogs, and all the other paraphernalia of the aborigine.

Having completed our view of the goldfield, we now turn to a model of the shaft of the Great Eastern Company, Gold Point, shewing the shaft, its mode of timbering, the strata and rock through which it was sunk, and the drives in the reef and gutter. This is a very ingenious and truthful picture of the works of one of the deep lead companies. The shafts and drives are on a scale of half-an-inch to the foot, but the strata and rock are on a quarter-inch scale, the depth of the shaft—viz., 228 feet to the reef, and thence 52 feet further to the gutter—being too great to admit of convenient representation on the larger scale.

SOUTH STAFFORDSHIRE UNION FOR THE PROMOTION OF ADULT EDUCATION AND EVENING SCHOOLS.

The second anniversary of this society was held on the 30th September, at Dudley. The proceedings of the day were commenced by a meeting of the Local Board and Executive Committee, held at the School of Art, when the report was adopted, and the members of the Executive Committee appointed for the ensuing year.

The report commenced by stating that the association was originally established with the view of affording mutual advice and assistance to all Institutions joining the Union, and giving their younger members in particular an incentive to more systematic study in classes and otherwise, so that eventually they might be brought up to the standard of the Examinations of the Society of Arts. The scheme of providing organising masters for giving regular class instruction to Mechanics' and such Institutions (as carried out in East Lancashire by Sir J. K. Shuttleworth) was beginning to bear valuable fruit; and it was resolved that the same scheme should be tried in South Staffordshire. Mr. Jones was accordingly appointed to the office; and since July, 1860, he had been employed in visiting Institutions and their chief promoters, organising and instructing classes connected therewith, and in furthering in other ways the general objects undertaken from time to time by the Union. The committee would not, however, disguise their disappointment that up to the present time their scheme had not met with that hearty response which was naturally expected from the Institutions of the neighbourhood; and they regretted that the burden of paying the reasonable expenses of a thoroughly competent agent for carrying on the scheme was now so great, that unless the funds of the Union soon received some augmentation they would be obliged to entertain the question whether the services of an organising master must not be withdrawn from the Union. At the first anniversary of the Union, the committee reported that eleven of the Institutions of the neighbourhood had joined the Union, and since that period one of these Institutions (the Christian Young Men's Association at Brierly-hill) had ceased to exist; but five others had signified their wish to join; thus making the total number 15. The Institutions already in connection with the Union were as follow :—Wolverhampton, Working Men's College; Smethwick, Messrs. Chance's Library; Bilston, Mechanics' Institution; Stourbridge, the Associated Institute; Brierley Hill, the Mechanics' Institute; Brierley Hill, the Christian Young Men's Association; Willenhall, Literary and Mechanics' Institute; Wednesbury, Mechanics' Institute; Wolverhampton, Christian Young Men's Association; Walsall, Working Man's College; Cradley, Night School. Those admitted during the past year were the Dudley Mechanics' Institute, Stourbridge Church of England Association, Handsworth St. Michael's Young Men's Instruction Society, Darlaston Mechanics' Institute, Dudley Educational Institute. The night schools at Amblecote, Walsall, Corngreaves, and Smethwick (Messrs. Chances's) had intimated their wish to join the Union, and would be formally received that evening. Night schools contributed 5s. annually. The Committee rejoiced to find that class instruction in connection with Institutions was on the increase, and there was a more frequent recognition of the importance of regular class instruction, and more frequent attempts to carry out plans for its development and successful issue; but still great difficulties cramped the efforts of the friends of the movement in most places, arising from a want of proper rooms and furniture. In nearly all places there was a deficiency of teaching power, as well as a lack of funds for the payment of such talent as the place might offer. At Wolverhampton, Stourbridge, Smethwick, and Dudley, there were facilities for carrying out class-teaching, and the last-named place would soon have an Institution that would probably serve as a model for the surrounding district. At Willenhall and Brierley Hill the Institutions had collected funds towards suitable buildings. Many institutions and night-schools had not, however, yet joined the Union, but it was hoped they would do so; they would thus draw to themselves a share of that more public consideration and support which their present limited but most useful range of operations prevented them from claiming. With referenee to the Local Examinations, the result of the issuing of the programme of subjects in which schools could be examined was that candidates presented themselves from Wednesbury, Walsall, Amblecote, Dudley, Smethwick, Wolverhampton, Cradley, Stourbridge, and Corngreaves,; and the examiners had awarded 61 certificates—17 of the first class and 44 of the second. Mr. J. N. Langley, of Wolverhampton, had undertaken the duties of Secretary to the Sub-Committee on night schools, and would be happy to give any information on the subject under his supervision. The programme of the next examination would be immediately issued. On the 18th 19th, and 20th of March last, the Local Board of the Association examined 62 candidates for admission to the final Examination of the Society of Arts. Of these, 48 came up to the required standard, and obtained "passes;" and on the evenings of the 30th April, 1st, 2nd, and 3rd May, 44 of them, together with 12 others who had gained certificates in previous years, and wished to raise their position, were examined in the several centres of the district, in accordance with the programme of the Society of Arts. In June the Society declared the awards, when out of the 56 candidates from South Staffordshire, 47 were found to have been awarded 67 certificates—19 of which were of the first class; 18 of the second; and thirty of the third; 9 only of the 56 having failed in their examination. The general result of the examination of this year compared with last showed that a very satisfactory advance had been made, as last year only four Institutions in "union" sent in 24 candidates, who obtained 27 certificates; and the Institutions not in "union" at that time sent in three candidates, who obtained their certificates—making five Institutions, 27 candidates, and 30 certificates; this year eleven Institutions had sent candidates who had obtained 67 certificates. Again, South Staffordshire occupied a good position in comparison with the whole of England. After giving the names of various successful candidates, the report went on to state that last year two of the prizes awarded by the Society of Arts (the first and second for Logic) fell to candidates from South Staffordshire. This year four had been obtained. The average age of candidates last year was 19⅔ years; this year it was 20⅔ nearly. Last year six subjects only were taken up; this year the number was thirteen; nearly one-half the total number in which they can be examined. The committee regretted that the low state of their finances prevented them giving prizes to those young persons whose names were placed in order of merit to the first and second grades respectively; but next year they hoped to be able to do so. While giving prominence to class instruction the committee did not wish to be unmindful of the good results of lectures and readings as means of instruction and recreation, but there were many difficulties in the way of carrying out this project, arising from the want of sufficient funds to employ lecturers, and also from the want of a responsive audience. Still, the committee hoped in a short time to be able to lay before the Institutions connected with the Union a list of lectures by known lecturers, and they propose to fix the charge to Institutions at ten shillings and sixpence, and to night schools at five shillings each lecture. Travelling expenses were, however, to be paid, in addition. They intended, with the money thus realised, after their present liabilities were discharged, to furnish Institutions with such apparatus, diagrams, &c., as might subserve such educational purposes as were contemplated by them. The committee appealed to the clergymen and gentry of the neighbourhood for assistance towards this object. A series of lectures upon English history (with pictorial illustrations), chemistry of common life, illustrative of sanitary arrangements, or good readings of the great authors of our country, were much desired, and would be thankfully accepted. After alluding to the Night School Conference held in Birmingham, and the papers there read, the report referred to the finances of the Union, regretting that they were in such an unsatisfactory state. At the last meeting there was £73 due to the treasurer; and although that amount had been somewhat diminished by the donations and subscriptions of the quarter, still the quarter's accounts now falling due would leave a still larger balance due to the treasurer. The document next alluded to the fact that besides the operations now being carried on the committee were desirous of affording pecuniary assistance and suitable teachers to the poor outlying districts; to certify competent persons as assistant teachers, or teachers of special subjects; to offer rewards for the study of special subjects, especially in the natural history of that locality; to publish annually a list of such books as might be thought desirable additions to libraries; to provide small lending libraries for poor districts; and, lastly, to collect and arrange for periodical loan a museum of art and natural history. The report concluded by thanking the Society of Arts for the assistance they had rendered to the Union.

The appointment of the committee and officers for the ensuing year closed the business of the meeting.

At the conclusion of the committee meeting, the members of the union and other gentlemen assembled at dinner in the Hotel Assembly Room. Lord Lyttelton presided, and there were also present the Rev. J. P. Norris and the Rev. H. R. Sandford (Her Majesty's Inspectors of Schools), the Revds. J. H. Sharwood, J. H. Thompson, and J. Whewell; Messrs. Thomas Bagnall, Henry Chance, Edward Chance, J. N. Langley, G. Bidlake, S. Hill (Chillington), Taylor (Stourbridge), J. Stokes (Dudley), Talbot (secretary), and Jones (organising secretary). At the conclusion of the dinner the company adjourned to the National School-room connected with St. Thomas's Church, where at seven o'clock a public meeting was held. In addition to the gentlemen above referred to, there were also present Rev. Dr. Browne (incumbent), Rev. Dr. Gordon, Rev. — Thompson (Cradley), Rev. Mr. Shephard, Spon-lane, and Rev. G. Lewis (Dudley). Lord Lyttelton occupied the chair, and, in opening the proceedings, remarked that they were assembled that evening to celebrate the second anniversary of a union for the promotion of adult education in the district, especially and primarily with a view to the examinations started by the Society of Arts. The union also contemplated in a subordinate way the assistance of night schools, the members of which could not reach so high a level as that contemplated in the other and primary objects of the Union. His lordship then called upon the secretary (Mr. Talbot) to read the report, an abstract of which is given above. The President of the Union then addressed the meeting. After speaking in eulogistic terms of the secretary (Mr. Talbot), his lordship said he wished to follow the cheerful tone which upon the whole marked the report they had just heard read, for when they bore in mind the primary objects of that Institution, they would agree with him there was great reason for congratulation upon what had been done.

The Rev. J. P. Norris next addressed the meeting, and was followed by the Rev. Mr. Thompson, of Cradley, who gave an encouraging account of the labours of the examiners; by the organising master, Mr. Jones, who gave a gratifying report of the night schools; by the Rev. Mr. Sharwood, of Walsall, who proposed a resolution recognising the usefulness of such Institutions; by the Rev. G. Lewis, and by Mr. J. Langley.

During the evening the various prizes were distributed by the President to the successful candidates, and a vote of thanks to his Lordship terminated the proceedings.

UNSINKABLE AND INCOMBUSTIBLE SHIPS.

The *Briton*, new screw steamer, destined for the Cape mail service, and now lying in the river off Deptford, is the first specimen of a novel system of shipbuilding, invented by Mr. Charles Lungley, who claims for his invention—which is patented—two great advantages, viz., safety from destruction by water, and to a great extent security against fire. Each deck of the vessel is distinct from the others, having no communication with them, but having its separate hatchway or entrance from the upper deck; the object of this arrangement being, that whatever injury may be incurred to either one or even to two of these decks or stories, the other or others will float. Thus, for instance, should the lower or keel deck be knocked away the two upper decks will float the ship; or should, either from a collision, the starting of a plate under the water line, or from a shot or a broadside penetrating the sheathing, one of the intermediate decks let in the water even to the extent of filling the compartment from stem to stern, the buoyant power would still remain, and the vessel would not only float, but be perfectly manageable, the water merely rising up the trunk hatchway of that particular deck to the level of the water-line outside, allowing full opportunity for a diver to descend, find out the place and extent of the injury, and repair it if capable of repair, after which the water might be pumped out and the ship freed. The same subdivision of decks which affords the security against entire submersion ensures protection against total destruction by fire. In the event of a fire being discovered on either deck the hatchway of that deck would be fastened down, and the supply of air being thus cut off the fire would die out of itself; or if the fire had got too much hold upon the ship to allow of this, then the entire deck in which the conflagration was raging might be filled with water without risk of other inconvenience than that of having to pump it out again. Another advantage of this mode of ship-building is the perfect ventilation it is said to insure to all parts of the vessel. At present the general practice is to have one main hatchway, which communicates from the upper deck to all the several floors on the ship, and which forms the ventilating shaft from each. It is easy to imagine in cases when fever breaks out on board how much the danger is likely to be increased by such an arrangement, or when large numbers of troops or emigrants are berthed below how much the risk of disease is increased by such imperfect ventilation. By Mr. Lungley's plan, each deck has its own ventilating shaft or shafts—for there may be one, two, or more—in the hatchways, which are its means of communication from above. These separate shafts likewise afford facilities for loading and unloading, which will be appreciated in merchant ships. The practice of dividing iron ships into water-tight compartments, with the view of preventing their sinking, has been followed for many years, but the division walls have in all cases been transverse; that is, each deck has been divided by water-tight iron bulk heads into three, four, or more separate rooms or apartments—the impression being that should one or two become by leakage filled with water, there would be buoyancy enough in the others to keep the ship afloat. Experience has unfortunately, however—and the case of the *Connaught* is a prominent instance among many—proved the unsoundness of this theory. The fact is, that when any one of the compartments becomes filled with water, or ships water in any considerable quantity, the vessel is unduly depressed in that particular part, and no longer sails with an even keel. To remedy this it would be necessary to let in a corresponding weight of water in the opposite compartments, which in all probability, even if practicable, would bring the ship down so low in the water that with anything like a sea on she would sink, or the wash from side to side would lay her over upon her broadside; whereas, if she were left with her keel out of the level, she would, as the water gained upon her, go down head or stern foremost, as the case might be. By making the decks themselves the water-tight divisions, the weight of water in case of leakage is equalised over the whole surface of the ship, and the even keel, which is the main element of safety, is preserved, while all danger is localised, and thus proportionately reduced. One thing which strikes the attention of the visitor on board the *Briton* is the perfect isolation of the engine room. Not only is it protected by the water-tight deck division, but longitudinal bulkheads, or iron walls, running fore and aft some feet within the outer shell or sides of the vessel protect it from the chance of injury from without. Thus a fracture in the outside plates occasioned by collision, stranding, or shot, although it might admit the water into the ship, would not affect the engines or the fires. The importance of this arrangement of longitudinal inside walls for the protection of the machinery, especially in ships of war, where it may be carried throughout the vessel, for adding to the stability of the entire structure, seems very great. The vessel is now complete, ready for sea, and in the meanwhile her builder, Mr. Lungley, invites those who take an interest in such subjects to inspect her, and, to a large extent, their invitation has been accepted and acted upon by merchant shipowners, and officers connected with the navy and the merchant service.

EXTRACTS FROM THE REPORTS OF H.B.M. CONSULS.

(*Continued from page 771.*)

Republic of St. Domingo.—The republic of Santo Domingo is divided into five provinces, namely:—Compostela de Azua; Santo Domingo de Guzman, containing the capital and seat of Government; Santa Cruz del Seybo; Concepcion de la Vega; Santiago de los Caballeros.

The three first extend along the southern seashore and inland to the central chain of mountains; Concepcion de la Vega stretches along the north-western foot of the mountain chain, comprising that splendid valley which Columbus called the Royal " La Vega Real;" and Santiago de los Caballeros, the remaining territory, occupies the northern seashore. The peninsula of Samana belongs to the jurisdiction of Seybo.

The province of Azua produces mahogany wood, some sugar; and the district of San Juan, belonging to that province, is famed for its grazing grounds; hence horses and cattle are raised there, and hides exported.

Santo Domingo produces mahogany, lignum vitæ, dye-woods, wax and some hides; lately sugar has been exported to some extent.

Seybo yields some mahogany, but principally cattle, the province being famed as standing only inferior to San Juan for its grazing grounds.

La Vega exports principally tobacco, the other articles are only of second importance.

Santiago is equally famed for its cultivation and export of tobacco.

These two latter provinces distinguish themselves for the superior industry of their inhabitants, hence the commerce is comparatively much larger and of greater extent than in the southern provinces, where a great deal of indolence prevails. It is to be regretted that the produce of Santiago and La Vega, which two provinces are known under the name of " El Cibao," have to be transported by a most circuitous road over the mountains to Puerto Plata, the shipping port of El Cibao. Although the direct distance is no more than sixteen miles, upwards of sixty have to be traversed before the produce reaches Porto Plata from Santiago. This road can only be used for horses and beasts of burthen, the highest pass, La Cumbre, is about 2,000 feet above the sea; one will therefore not be surprised to learn that the transport from Santiago to Puerto Plata is higher than the freight from the latter port to Hamburg and Bremen.

Nature has pointed out the great road of traffic for the Cibao, by following the valley of the river Yuna, which opens into the handsome bay of Samana. But the desire of following the customs of their forefathers and want of industry and energy, to say nothing of the requisite capital, render the inhabitants blind to this great advantage.

It is impossible to give a fair estimate of the population of the Dominican Republic. No proper census has been taken for an age. The present government highly exaggerate the number of their citizens. I do not think that the whole population surpasses 150,000.

According to the law of the maritime commerce now in force, the following ports are declared open for import and export in national and foreign vessels:—Santo Domingo, Tortuguero de Azua, Puerto Plata, Samana, and Romana. The port of Monte Christi is open only for exportations.

The coasting trade is reserved to national vessels, but foreign vessels may load in any part of the republic by means of a permit, and by paying half a dollar per ton for a licence. The vessels that load on the coast have, however, to return to one of the open ports in order to clear out.

The foreign ships that arrive at Santo Domingo for the purpose of loading mahogany and other woods enter their vessels at the Custom-house, and proceed then to one or more of the ports and anchoring places along the coast, in the neighbourhood of which the mahogany lies ready for embarcation. The greater number of these places are not inserted on the charts, and some are of that nature that the vessel can only be loaded with great risk. The consequence has been that a great many vessels have been lost, and the coast of Santo Domingo has become in disrepute with shipowners and insurance companies.

In order to give a general idea of the places where vessels are sent to in order to load mahogany, &c., I published, in 1853, in the *Nautical Magazine*, " remarks on the principal ports and anchoring places along the coast of the Dominican Republic," which memoir has been separately reprinted and has been likewise translated into Spanish. It remains still the only work that gives information to the mariner as regards the safety or danger of the place mentioned in it.

The port charges upon vessels at their entry from abroad are :—

1. For every ton that the vessel measures according to its register one dollar Spanish,* if the vessel belongs to a nation in treaty with the Dominican Republic; if otherwise, one dollar and a half.

2. Lighthouse duty, 6 cents silver per ton.

3. Foreign vessels (as already mentioned) to load on the coast, half a dollar per ton.

4. Anchorage, for every ton, 6 cents silver.

5. Pilotage, when it is required, for every ton, 6 cents silver.

6. Entry, for every ton, 4 cents silver.

7. Duty for the stage on unloading, 2 dollars for every day that use is made of it.

8. Wharfage, 1 per cent. on the total amount of import and export duties.

9. Interpreter's duty, for every vessel from one to 100 tons, 2 dollars. From 101 upwards, 4 dollars.

10. For the maintenance of the telegraph, for every vessel from one ton upwards to 100 tons, 2 dollars; and from 101 tons upwards, 4 dollars Spanish.

11. Health officer, 2 dollars.

12. Watering at the well, 1 dollar per puncheon.

All vessels under twenty tons coming from abroad are only subjected to the following charges, namely :—Tonnage duty; wharfage duty on goods imported or exported; licence for a permit (if a foreign vessel) to load on the coast. These charges must be paid in hard money before the sailing of the vessel.

Men of war, packets or mails, whether under national or foreign flag, vessels that arrive expressly with emigrants, and vessels that by stress of weather put into a port of the republic; further, those that enter and clear in ballast, or enter into port for the repair of damages, provided that that they do not discharge or take in cargo, are exempted from all charges.

The duty upon imports is 25 per cent. according to the value which a commission, consisting of custom-house officers and merchants, have fixed for each of the articles that comprise the general imports. Thus, for example, rice has been fixed in the tariff, or " arancel," at the value of 4 dollars per cwt. (25 per cwt. duty upon which make 1 dollar); ready made shirts of fine linen at 30 dollars per dozen give 25 per cent., hence the duty upon it would be 7½ dollars, &c. The fixed prices are in every instance moderate, and generally under the actual cost price.

All kinds of machinery for husbandry and industry, scientific instruments, books, horses, mules, and all live animals, tiles for roofing houses, military equipments, &c., are free of import duty.

The export duty is moderate, namely :—

	Dollars.	Cents.
Wax, White, per cwt.	1	50
Ditto, Yellow, per cwt.	1	0
Mahogany, Espinillo, Calla, and other ornamental woods, per 1,000 feet	5	0
Campeach, Lignum vitæ, Fustic, per ton...	1	0
Hogs, Sheep, and Goats, each	0	50
Hides, each	0	6
Ditto, of Goats, Sheep, and Hogs, per doz.	0	25
Honey, per gallon	0	1
Resin, Guicum, or others, per cwt.	0	50
Tobacco in leaves, per cwt.	0	50

Horses are forbidden to be exported in large numbers. There is also a law existing, but little attended to, that mahogany of a less size than ten inches in breadth is not to be exported. This regulation has, no doubt, for its object to prevent the cutting down of young trees.

These duties, export as well as import, are paid alike under whatsoever flag the vessel that imports and exports the goods may sail, the Dominican not excepted.

The warehousing and bonding system is established by law, and extends to all ports open to the foreign trade. Goods may be warehoused at the Custom-house stores, for the space of sixty days, by paying a duty of 1 per cent. on the amount of the invoice. On the expiration of that term, if they have not been exported, they must be entered for importation, and pay the duty as regulated by the tariff.

Monetary System.—The great obstacle to extensive commercial operations exists in the scarcity of coin and the substitution of an inconvertible paper currency, the credit of which rests upon the public revenue and territorial possessions of the republic.

In 1844, when the Dominican Republic entered into existence, the currency consisted of Haytian paper money guaranteed by that government, which was soon called in and exchanged for Dominican paper, and an additional issue was made of nearly half a million. This paper money was at that time current at the rate of 40 pesos currency for the doubloon of 16 dollars Spanish (equal to £3 6s. 8d.; or a Dominican peso was then equal to 1s. 8d.) New issues followed in subsequent years under the various administrations that succeeded each other, and it may be safely calculated that the amount now afloat is probably twelve millions of pesos.

The political events, internal strifes, invasions of the Haytians, and the large quantity of paper-money afloat, all these circumstances have contributed to depress these assignats; and the doubloon which is taken as normal coin, commanded at some period last year 1,200 pesos, hence a Dominican peso, which in 1844, was worth 1s. 8d., had at that time merely a value of ¾d.

In consequence of the approaching tobacco crop in the Cibao, where a large amount of paper money is requisite to pay the farmers for their produce, the value of the currency has risen, and the doubloon commands now only 800 pesos, or the peso is exactly 1d.

These notes pass freely within the republic in the common transactions of life, but as there is no convertibility attached to them, the merchant who has to make a remittance in cash, has to exchange them within the Republic, often with great disadvantage, for hard money or bills of exchange. Hence the merchant and retailer, are both alike subjected to heavy losses in consequence of their rapid deterioration; and, as the former is obliged to sell on credit, it happens frequently that by the time the amounts are due, the fictitious medium has lost 50 per cent., for which he did not make any allowance when he fixed his prices.

Except, therefore, a more healthy state can be introduced into the financial system, by which the paper issue is rendered convertible, there can scarcely be any inducement to embark large capital for mercantile speculations.

Several attempts have been made by British merchants to endeavour to establish a direct commercial intercourse with Great Britain. They have, however, failed in Santo Domingo, as the exports which could be sent, principally mahogany, lignum vitæ, &c., were not of sufficient value to pay the amount of the imports; and, in order to remit specie, the circulation of the paper-money of a very low value, rendered the operation extremely doubtful.

It is, in some respects, very different in Porto Plato, where several English and German houses are established;

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* The silver or Spanish dollar is of the value of 4s. 2d.

for, the principal produce being tobacco, this article possesses a much greater value than mahogany and other woods.

The revenue of the republic depends principally upon the import and export duties.

Every merchant, retailer, or shopkeeper, tradesman, &c., has, moreover, to pay an annual sum for a licence to carry on his occupation. The respective amounts are fixed annually, without difference in the amount, whether the person who applies for a licence is a Dominican or a foreigner. There are no land or house taxes.

The Dominican Republic has no foreign debt; hence the national debts consist in the sum of paper currency which is in circulation within the republic.

The currency consists in notes of 40 pesos, 20 pesos, 10 pesos, 2 pesos, and 1 peso. There is likewise some small coin current made of a kind of composition, 32 of which make 1 peso.

Of foreign silver money there circulate Spanish and American dollars, and smaller coins of that description. French five-franc pieces at 94 cents; English silver money at 4s. 2d. per dollar; likewise Spanish and South American doubloons at 16 dollars. American, English, French, and Dutch gold coins.

The Custom-house weights and liquid measures are the English pound and the imperial gallon.

In wholesale transactions the merchants use French weight; and, for measure, the English yard; but, in retail shops, the Spanish vara, which is 8 per cent. less than the English yard, is invariably employed.

Home Correspondence.

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PHOTOGRAPHY AT THE EXHIBITION OF 1862.

SIR,—Perhaps in no art has there been greater progress made, since our last decennial Exhibition, than in that of photography—an art that, by the use of collodion, has risen from a mere toy to a giant power and boundless pleasure—a power that I hope may not be turned against us in 1862. Photographers must be up and stirring if they want to compete with the results I have seen in the northern capitals of Europe, and which, doubtless, are to be found in the south also. I allude to the life-size portraits taken by the action of light, of heroic proportions and artistic worth, reminding one of the best works of such great masters as Rembrandt, Reynolds, Velasquez, and Opie. I know it is the idea here that objects the size of life cannot be done satisfactorily to compete with the works of our artists—a great mistake, that we may find to our cost in next May. If we had nothing to contend with save the miserable heads exposed in one or two of our leading thoroughfares—great faces, or rather "likenessess," without expression, being libels on humanity in general and individuals in particular—we should have little to fear; but such is not the case. From Berlin, Dresden, the Hague, Aix la Chapelle, and Brussels, we shall have first-rate full-length portraits, looking more like grand paintings in sepia, than tarnished silver fixed by a chemical process, independent of the artist's touch as I presume them to be, though some hold otherwise. All I can say, from several at present exhibiting at an Exposition in the Palais du Prince Héréditaire, at Brussels, is, that if touched by artists they are a great credit to their powers, and the result highly satisfactory; but I do not believe nature in this case has required such aid or had it. At Brussels, in the Exposition I name, are several life-sized portraits, remarkable for breadth of effect and artistic treatment; a half length of a man, in a loose coat, with a broad felt hat in his hand; and another of a gentleman reading, on a bed or couch, much foreshortened; also one of the Emperor of the French, I think taken from a small album portrait.

The minature painters' occupation is nearly gone, and we may perhaps see the second-rate portrait painter also superseded, and the same negative made to print pictures for the walls of town-hall or mansion, or for the album in the lady's boudoir. I am, &c.,

JOHN LEIGHTON.

Regent's Park, October 14th, 1861.

NATIONAL PORTRAIT GALLERY.

SIR,—In the Society's *Journal* of the 14th June last, a correspondent made a strong statement upon the condition of the National Portrait Gallery. He represented the unfit, dark, and miserable appearance of the rooms; the little progress made in the collection; the unworthiness of the greater part of what has been collected; the extravagant cost; and the poor return which the public can derive from it—averaging the charge at 20s. per head upon the few listless visitors, who cast round a disappointed glance and quickly leave.

On a visit to the gallery, all this was confirmed in my own judgment. The statements, however, challenged a reply, and I looked, though in vain, for some defence. The paid management, whose competence and efficiency were so loudly impugned, has been silent—no doubt wisely silent. But the hard facts which appeared in the Society's *Journal*, though unanswered, were not unheeded. The little puffs sent the round of the press, to herald every petty addition to the Gallery, at once ceased; the annual vote of £2,000 was not, as heretofore, silently passed by the House of Commons, but called forth hostile remarks ominous for the future; and, lastly, a most significant fact, Lord Stanley, M.P., Vice-President of the Society of Arts, was appointed a Commissioner of the National Portrait Gallery.

The opportunity has now arisen for immediately locating this misplaced collection in a suitable gallery. The Turner Pictures have been, I am sorry to say, removed from South Kensington, and have left ample space for the National Portraits. There the collection may receive at once its true development, with all the additions which have been suggested. There the original intention of Lord Stanhope may be realised, and the large sums now uselessly wasted in establishment expenses may be devoted to the completion of the collection. The Society of Arts will, I am sure, feel confidence in the judgment of their Vice-President, and will trust that where he has authority no portion of the small funds devoted to the teaching and delight of all shall be misapplied; and what he may deem the best course for animating the still-born scheme of a National Portrait Gallery will be carried out; and we may see at South Kensington, even in May, 1862, the germ of a collection which we may not be ashamed to call by such a distinguished name. I am, &c.,

S. A. M.

October 3, 1861.

STRUCTURE OF METALS.

SIR,—Believing that the following information on the structure of some of the malleable metals will be new and interesting to your readers, I beg to offer it for insertion in your *Journal*.

It is well known that silver, copper, and malleable iron when newly broken give a very considerable reflection of light from the fracture, and it has generally been understood that the structure was granular, or composed of crystals, and that the reflection of light was from the angles of these; on examining specimens of the above-named metals with a microscope, however, I discovered that the structure was perfectly porous or cellular, and that the reflection of light seen was from the inner surfaces of the cells which, though minute, were most brilliantly reflected, especially when newly broken; and when the metal was bent a little in one direction before breaking, thereby presenting the sides of the cells to the proper angle, the reflection was then more fully seen than when the cells remained in their natural position.

There is a slight difference in the size and number of the cells in different specimens of the same metal, but the general resemblance is remarkably constant.

In silver, the form of the cell is somewhat oblong, but the cell is larger than the cell of copper or iron, and the system is more perfectly developed, that is, the internal communication from cell to cell appears to be more regular.

The form of the cell in copper is nearly spherical, but in some instances they seem to press into the domains of each other, and their forms are therefore to some extent modified thereby.

Copper from different works differs in the diameter of the cells, as well as in the number of them, but the range seems to be from five hundred to a thousand in the linear inch, and it should be remarked that a specimen of best select copper does not seem to have any portion of it absolutely solid and dense; on the contrary, the partitions between the cells are exceedingly thin, so thin, that there appear to be minute circular openings from each one to the surrounding cells, so that, as in silver, there is an internal communication through the entire mass.

The cells in iron are more irregular in size and form, their inner surfaces being jagged and uneven, and less brilliant than those of silver and copper; the best fibrous iron, however, seems to be equally free from angular crystals, and shows a high degree of porosity.

A good microscope, with low powers, say from two inch to half inch focus, is well suited to the observation.

This cell system is only developed internally in the metal; the outer surfaces, whether in contact with the mould or atmosphere, seem to be entirely destitute of these cells. The action of the tool also obliterates them, so that it is in the fracture alone that they can be seen.

In conclusion, I may say that it is my opinion that the malleability as well as the superiority of silver, copper, and iron, over other metals, for conducting heat and electricity, may be owing to the perfection of their cellular arrangement. I am, &c.,

W. VIVIAN.

Pary's Mines, near Bangor, N. Wales,
October 16th, 1861.

Proceedings of Institutions.

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Glasgow Mechanics' Institution.—On the evening of the 4th of October, the prizes and certificates awarded by the Society of Arts to the successful candidates connected with the Glasgow Mechanics' Institution were presented, in the large hall of the building, which was well filled—the audience being chiefly composed of young men. Professor Anderson, of the University, filled the chair, supported by several of the directors. The Chairman said this was the third occasion on which he had been called upon to discharge this pleasing duty, and he did so with the greatest satisfaction. From his first connection with the Institution as chairman of the Local Board, he had taken great interest in the progress of these examinations, which he regarded as highly important, and calculated, in the course of time, to exercise great influence upon Institutions such as that with which they were connected. They were no doubt aware of the general character of the examinations which candidates were submitted to. The first step was that of ascertaing whether the student was fitted, from his general education, to be a competitor in any of the special subjects to which he wished to devote his attention, the Local Board testing his acquirements in hand-writing, the elements of arithmetic and a knowledge of the English language—branches of knowledge with which every one ought to be acquainted. The Local board had, therefore, a very important duty to perform—that of ascertaining at the outset, whether the students had sufficient knowledge to entitle them to go forward to the Society's Examination at all; in fact, they had the absolute power of stopping short any one whose abilities or knowledge was insufficient to carry him successfully through. This power, however, they exercised very charily, believing it was not right to prevent any young man going forward unless his ignorance was of a very gross description indeed; and, as a consequence, the number of students stopped had been very small. After having gone through this examination, the student passed a preliminary examination in the subject for which he wished a special certificate. These preliminaries satisfactorily passed through, the aspirants for the rewards of the Society of Arts had questions submitted to them, on the answers to which the final decision was to be given. These questions were identical all over the country; the students in London, Manchester, Glasgow, and elsewhere had the same printed queries given them on the same day and hour; so that they were all engaged at once in writing out the papers which were to be transmitted to the examiners. As these papers were judged by the same gentlemen, there could be no difference of criterion—every man was judged according to his ability. The members of the Glasgow Mechanics' Institution, he was happy to say, had reason to congratulate themselves on the result of the examination. Twice before he had been privileged to say this. On both previous occasions the students had stood very high, both in number and position, and he rejoiced to say that they had carried off this year a larger number of certificates than any Institution in the kingdom. They stood higher, not only in the total of certificates, but also in those of the first class. The number of first-class certificates awarded for the present year was twenty four, the Institution next in rank having gained fifteen; of second-class nineteen, another Institution having been awarded the same number; while of the third-class they had obtained fifteen, another Institution having gained nineteen. This statistical statement was undoubtedly important, as showing that since none could beat them in obtaining first-class certificates, the acquirements of the students must be high and varied. The point which appeared to him to be of the most importance was, that the number of high-class certificates was essentially dependent upon the previous education of the candidate; so much so, indeed, that if given the result of the students' examination in English reading, and so forth, he could tell who would gain first-class and who third-class certificates in their special subjects. Men with a good general education were those who would get the highest honours when examined on special subjects. He wished to impress upon them the importance of coming to the Institution with a good preliminary education; and if they happened to be deficient in this respect, he would have them endeavour at once to repair the loss. It seemed to him absurd to give a certificate in mathematics, or electricity, or any other subject, to a man who could not spell correctly nor write a good hand. Certificates had been obtained in nearly all branches of knowledge—in arithmetic, the various departments of mathematics, the different branches of physical science, electricity, magnetism, chemistry, and so on. Languages, also, were represented, more especially French, which, on this as on previous occasions, appeared to be a favourite subject of study. He was, however surprised to find that English language and literature had not yet been properly taken up in the Glasgow Mechanics' Institution—a branch of study which merited a greater amount of attention upon the part of young men generally than it commonly received. The certificates he was about to present were of such a character as to ensure for the young men favourable consideration in active life. They indicated that, having felt certain deficiencies in their early education, they had resolved to acquire additional knowledge. The students were, therefore, picked men, whose aim was to acquire knowledge, and herein lay the great part of their success.—The Chairman then proceeded to present the prizes and certificates of merit to the successful competitors.

PATENT LAW AMENDMENT ACT.

APPLICATIONS FOR PATENTS AND PROTECTION ALLOWED.

[*From Gazette, October* 11*th*, 1861.]

Dated 19*th September*, 1861.

2334. J. Clough, Bolton-le-Moors—Certain imp. in machinery for preparing cotton and other fibrous substances.
2336. J. Durrant, Granville-terrace, Lewisham, Kent—An improved form of coal box, combining within itself a cinder sifter, an ash and dust pan, and receptacles for other requisites connected with domestic fire stoves.
2339. E. Breffit, King William-street—An improved fuel.
2346. A. J. Sedley, 210, Regent-street—Imp. in metallic bedsteads and sofa bedsteads.

Dated 20*th September*, 1861.

2350. B. Smith, Birmingham—Imp. in taps and cocks.
2358. G. T. Bousfield, Loughborough-park, Brixton—Imp. in machinery for combing cotton and other fibrous material. (A com.)
2360. G. T. Bousfield, Loughborough-park, Brixton—Imp. in machinery for manufacturing shoes for horses and other animals. (A com.)

Dated 21*st September*, 1861.

2364. J. Fenton, Low Moor, Yorkshire—An improved method of causing the water to circulate in steam boilers.
2366. A. Parkes, Birmingham—Imp. in the manufacture of castings, rods, bars, bolts, nails, rivets, and sheets when alloys of copper are used.
2368. S. Desborough, Noble-street, St. Martin's-le-Grand—Imp. in the manufacture of pins for hair, dress, jewellery, and other purposes.

Dated 23*rd September*, 1861.

2370. C. Stevens, 31, Charing-cross—Imp. in the manufacture of steel and in the hardening of metals. (A com.)
2372. J. Kenyon, Blackburn—Imp. in the treatment of yarns or warps previous to their being sized.
2374. V. Jankowski, 4, Princes-street, Fitzroy-square—Imp. in carriages.
2376. J. Price, Dundalk, Ireland—Imp. in the permanent way of railways.

Dated 24*th September*, 1861.

2378. J. D. Parkes, 47, Parliament street, Westminster—Imp. in the propeller of a ship. (A com.)
2380. A. J. Sedley, 210, Regent-street—Imp. in constructing bridges and viaducts.
2384. J. Fawcett, Wakefield—An improved material particularly adapted for the scouring, cleansing, and fulling of woollen or other cloths.
2386. G. Davies, 1, Serle-street, Lincoln's-inn—Imp. in the process of preserving provisions, and in the apparatus employed therein. (A com.)

Dated 25*th September*, 1861.

2390. T. Bright and R. Mills, Rochdale—Imp. in apparatus or means employed in the printing of yarns for carpets and other fabrics.
2392. R. A. Brooman, 166, Fleet-street—Imp. in apparatuses for letting off water from and for admitting oil or other lubricating matter into steam cylinders. (A com.)
2396. T. Richardson, Newcastle-upon-Tyne—Imp. in the manufacture of muriate of iron for the purification of coal gas.
2398. G. Russell, Swan-hill, Shrewsbury—Spring stretchers or bedsteads for camp, hospital, or general use.

Dated 26*th September*, 1861.

2400. T. Bentley, Margate, Ken—Imp. in apparatus for beating eggs, and for mixing or agitating other fluids, compounds, or matters.
2402. J. Openshaw, W. Entwistle, and J. Lord, Bury—Certain imp. in "mules" for spinning cotton and other fibrous substances.
2404. J. H. Johnson, 47, Lincoln's-inn-fields—Imp. in smoothing irons. (A com.)
2406. G. T. Bousfield, Loughborough-park, Brixton—Imp. in knapsacks. (A com.)
2410. V. S. Lété, Paris—Imp. in aerated or sparkling white wines.
2412. W. Clark, 53, Chancery-lane—Imp. in the manufacture of peat. (A com.)

Dated 27*th September*, 1861.

2414. F. W. Shields, 47, Parliament-street, Westminster—An improved method of applying wrought iron or steel plates to the covering and protection from the effects of shot and shell of forts, buildings, floating vessels, and other constructions.
2416. J. Kimberley, Birmingham—A new or improved machine for mortising, tenoning, sawing, boring, drilling, and grooving wood.

Dated 28*th September*, 1861.

2422. J. A. Knight, 4, Symond's-inn, Chancery-lane—An imp. in steam pumping engines. (A com.)
2426. D. Lane, Cork—Imp. in apparatus whereby to regulate the passage or flow of gas, water, and other fluids.
2428. T. Potts, Old Kent-road—An imp. in clasps for books, portfolios, desks, and other similar articles.
2430. C. Comer, jun., Salford—Imp. in the manufacture of metal tubes for bedsteads and other purposes, and in the machinery employed therein.

Dated 30*th September*, 1861.

2434. B. G. George, Hatton-garden—Imp. in the mounting of tablets, show bills, prints, photographs, and drawings, and of producing embossed ornamentation applicable to various purposes.
2440. F. Walton and R. Beard, jun., Chiswick, Middlesex—Imp. in the manufacture of varnishes applicable to the waterproofing and coating of fabrics and other uses.

Dated 1*st October*, 1861.

2444. O. O. Lesourd, Paris—Imp. in joining pipes and tubes or in forming or securing the joints thereof. (A com.)
2446. J. W. Scott, Worcester—An imp. in gun wads.
2448. W. H. Payn, Dover—Imp. in apparatus for preventing the loss of and facilitating the recovery of ships' moorings and submerged property in general. (A com.)

Dated 2*nd October*, 1861.

2450. J. Hesford, Bolton-le-Moors, Lancashire—Certain imp. in steam engines, and in valves for steam and other fluids.
2454. A. Fowler, 4, Scott's-yard, Cannon-street—Imp. in buffers of railway carriages.
2456. W. Maltby, De Crespigny-park, Camberwell, Surrey—Imp. in the manufacture of starch and starch gum.
2462. C. G. Hill, Commerce-square, High-pavement, Nottingham—Imp. in machinery, or in apparatus connected therewith, in the manufacture of bonnet and cap fronts, rouches, and millinery or other trimmings.

Patents Sealed.

[*From Gazette, October* 11*th*, 1861.]

October 10*th*.

642. J. A. Phillips.
833. P. G. Gardiner.
895. R. A. Brooman.
898. S. Roberts.
899. J. M. Dunlop.
903. J. Ward and R. Greenwood.
907. F. Bailey.
911. G. Graham.
912. H. Maden and J. Wheater.
914. C. Roberts.
921. E. Brooks.
923. A. Sax.
924. T. Miller.
927. F. Gye.
931. P. Gipouloux.
933. R. Ransome.
939. J. R. Hill.
941. J. Vickerman.
942. G. Leroy.
944. B. Brown and R. Hacking.
945. W. Clark.
957. C. Jordan.
974. H. Parkes.
976. W. Ryder and T. Ryder.
981. J. B. J. Noirot.
1012. M. Henry.
1093. W. Walton.
1125. W. C. Homersham.
1150. W. E. Newton.
1876. E. Sang.

Patents on which the Stamp Duty of £50 has been Paid.

[*From Gazette, October* 11*th*, 1861.]

October 7*th*.

2213. C. W. Lancaster.
2344. T. Twells.

October 8*th*.

2256. J. Holroyd.
2277. M. Sautter.
2307. G. F. Wilson.

October 9*th*.

2259. J. Beattie.
2283. A. Beda.

[*From Gazette, October* 15*th*, 1861.]

Octhber 10*th*.

2258. J. Saxby.
2269. J. F. Swinburn.
2270. L. Wray.
2291. T. Ingram.
2321. C. West.

October 11*th*.

2274. Capt. G. Beadon, R.N.

October 12*th*.

2287. L. Cowell.
2294. H. Martin.

Patents on which the Stamp Duty of £100 has been Paid.

[*From Gazette, October* 11*th*, 1861.]

October 8*th*.

2180. E. J. Seville.

[*From Gazette, October* 15*th*, 1861.]

October 10*th*.

2210. E. Bernot.
2357. T. Metcalfe.

LIST OF DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

No. in the Register.	Date of Registration.	Title.	Proprietor's Name.	Address.
4410	Sept. 27.	Harrison's Universal Luggage Label	John Harrison	25½, Ann-street, Birmingham.
4411	,, 27.	Pig Trough	Ransome and Sims	Ipswich.
4412	,, 28.	The Victoria Safety Brooch Fastener	Richard Bestell	35, High-street, Croydon.
4413	,, 28.	Improved Stable Fittings......................	William Owen	Phœnix Works, Rotherham.
4414	Oct. 5.	Part of a Combined Cruet Frame and Call Bell	William Spurrier	Birmingham.
4415	,, 7.	A Wet Gas Meter	R. Laidlaw and Sons	Edinburgh.